AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A silicon carbide single crystal containing an uncompensated impurity in ~~an atomic number density~~ a concentration of at least 1 x $10^{15}/cm^3$, and containing vanadium in a concentration of less than [[a]] the concentration of said uncompensated impurity; wherein the difference in concentrations of said uncompensated impurity and said vanadium is such that said single crystal has an electrical resistivity at room temperature of at least 1 x 10^5 Ωcm.

2. (original) A silicon carbide single crystal as set forth in claim 1, wherein said uncompensated impurity has a concentration of not more than 1 x $10^{17}/cm^3$.

3. (original) A silicon carbide single crystal as set forth in claim 1, wherein said uncompensated impurity has a concentration of not more than 5 x $10^{16}/cm^3$.

4. (previously presented) A silicon carbide single crystal as set forth in claim 1, wherein said uncompensated impurity gives a conductivity type of an n type.

5. (original) A silicon carbide single crystal as set forth in claim 1, wherein said vanadium has a concentration of at least 5 x $10^{14}/cm^3$.

6. (original) A silicon carbide single crystal as set forth in claim 1, wherein said vanadium has a concentration of not less than 1 x $10^{15}/cm^3$.

7. (original) A silicon carbide single crystal as set forth in claim 1, wherein said vanadium has a concentration of not less than 1 x $10^{16}/cm^3$.

8. (original) A silicon carbide single crystal as set forth in claim 1, wherein the difference in concentration of said uncompensated impurity and said vanadium is not more than 1 x $10^{17}/cm^3$.

9. (previously presented) A silicon carbide single crystal as set forth in claim 1, wherein the difference in concentration of said uncompensated impurity and said vanadium is not more than 5 x $10^{16}/cm^3$.

10. (previously presented) A silicon carbide single crystal as set forth in claim 1, wherein the difference in concentration of said uncompensated impurity and said vanadium is not more than $1 \times 10^{16}/cm^3$.

11. (previously presented) A silicon carbide single crystal as set forth in claim 1, wherein said silicon carbide single crystal has a main polytype of 3C, 4H, or 6H.

12. (previously presented) A silicon carbide single crystal as set forth in claim 1, wherein said silicon carbide single crystal has a main polytype of 4H.

13. (currently amended) A silicon carbide single crystal wafer obtained by processing and polishing a silicon carbide single crystal as set forth in claim 1, wherein said wafer has an electrical resistivity at room temperature of at least ~~5×10^3~~-1×10^{10} Ωcm.

14. (currently amended) A silicon carbide single crystal wafer obtained by processing and polishing a silicon carbide single crystal as set forth in claim 1, wherein said wafer has an electrical resistivity at room temperature of not less than ~~1×10^5~~ 1×10^{11} Ωcm.

15. (currently amended) A silicon carbide single crystal wafer ~~as set forth in claim 13~~ obtained by processing and polishing a silicon carbide single crystal as set forth in claim 1, wherein said silicon carbide single crystal wafer at room temperature is a single polytype of 3C, 4H, or 6H.

16. (currently amended) A silicon carbide single crystal wafer as set forth in claim ~~13~~ 15, wherein said silicon carbide single crystal wafer is comprised of a single polytype of 4H.

17. (currently amended) A silicon carbide single crystal wafer as set forth in claim ~~13~~ 15, wherein said wafer has a size of at least 50 mm.

18. (currently amended) A silicon carbide single crystal wafer as set forth in claim ~~13~~ 15, wherein said wafer has a size of at least 100 mm.

19. (currently amended) An epitaxial wafer comprised of a silicon carbide single crystal wafer as set forth in claim ~~13~~-15, on the surface of which a silicon carbide thin film is grown.

20. (currently amended) An epitaxial wafer comprised of a silicon carbide single crystal wafer as set forth in claim ~~13~~ 15, on the surface of which a gallium nitride, aluminum nitride, or indium nitride thin film or mixed crystal thin film of the same is grown.

21. (withdrawn) A method of production of a silicon carbide single crystal by using a sublimation recrystallization method using a seed crystal to grown a single crystal, said method of production of a silicon carbide single crystal characterized by using a sublimating material comprised of silicon carbide and vanadium or a vanadium compound in a mixture and using for the crystal growth a graphite crucible having a nitrogen concentration of not more than 50 ppm as measured by an inert gas fusion thermal conductivity method.

22. (withdrawn) A method of production of a silicon carbide single crystal as set forth in claim 21, wherein said graphite crucible has a nitrogen concentration of not more than 20 ppm.

23. (withdrawn) A method of production of a silicon carbide single crystal as set forth in claim 21, wherein said graphite crucible has a nitrogen concentration of not more than 10 ppm.

24. (withdrawn) A method of production of a silicon carbide single crystal as set forth in claim 21, wherein said graphite crucible is a graphite crucible treated for purification by being held in an inert gas atmosphere of a pressure of not more than 1.3 Pa at a temperature of 1400°C or more for 10 hours to less than 120 hours.

25. (withdrawn) A method of production of a silicon carbide single crystal as set forth in claim 21, further comprising charging the graphite crucible with a material powder mainly comprised of silicon carbide and, in that state, treating the graphite crucible for purification by holding it in an inert gas atmosphere at a pressure of not more than 1.3 Pa at a temperature of 1400 to 1800°C for 10 hours to less than 120 hours, placing said graphite crucible and seed crystal in an inert gas atmosphere adjusted in pressure to 1.3×10^2 to 1.3×10^4 Pa, and heating to 2000°C or more, then starting crystal growth.

26. (withdrawn) A method of production of a silicon carbide single crystal as set forth in claim 24, wherein said purification treatment is performed at a pressure of 1.3×10^{-1} Pa or less.

27. (withdrawn) A method of production of a silicon carbide single crystal as set forth in claim 24, wherein said purification treatment is performed at a pressure of 6.5×10^{-2} Pa or less.

28. (withdrawn) A method of production of a silicon carbide single crystal as set forth in claim 24, wherein after said purification treatment, said graphite crucible is used for crystal growth without being exposed to the atmosphere.

29. (new) A silicon carbide single crystal as set forth in claim 1, wherein said silicon carbide single crystal has an electrical resistivity at room temperature of at least 1×10^{10} Ωcm.

30. (new) A silicon carbide single crystal as set forth in claim 1, wherein said silicon carbide single crystal has an electrical resistivity at room temperature of not less than 1×10^{11} Ωcm.